

Report On Business®

Economy Declines in July; PMI Falls to 47.4%; New Orders Decline Sharply

JULY REPORT

Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of materials management, Pitney Bowes, Inc.

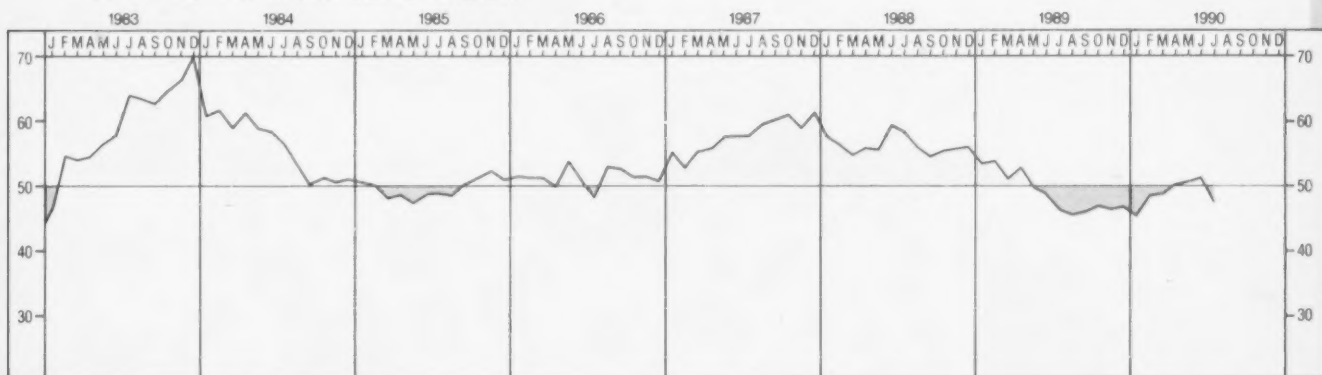
The manufacturing economy declined in July, reversing a three-month trend of consecutively larger increases, say the nation's purchasing executives in their latest **Report on Business**. The Production Index rose for the sixth consecutive month, but at the lowest rate in that period. New Orders decline in July after registering strong increases in the second quarter. New Export Orders continued to increase while Imports declined for the third consecutive month. Employment declined in July for

the 17th consecutive month, although the rate of decline was the lowest since June 1989.

Inventories decreased significantly in July, as purchasing managers decreased purchases and worked off inventories in anticipation of sharply decreasing New Orders. The Supplier Deliveries Index declined, reflecting the decrease in purchases and New Orders. Prices rose in July for the third time in four months, although at a relatively lower pace.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of materials management at Pitney Bowes, Inc. Said Bretz, "The manufacturing economy got off to a bad start in the third quarter, abruptly ending a three-month moderate, but solid, increase in growth. The sharp decline in New Orders apparently caused purchasers to reduce the quantity of purchases and work off existing inventories. The weakness of New Orders in July now casts a shadow over the previous expectations for continued growth in the economy in the third quarter."

PURCHASING MANAGERS' INDEX



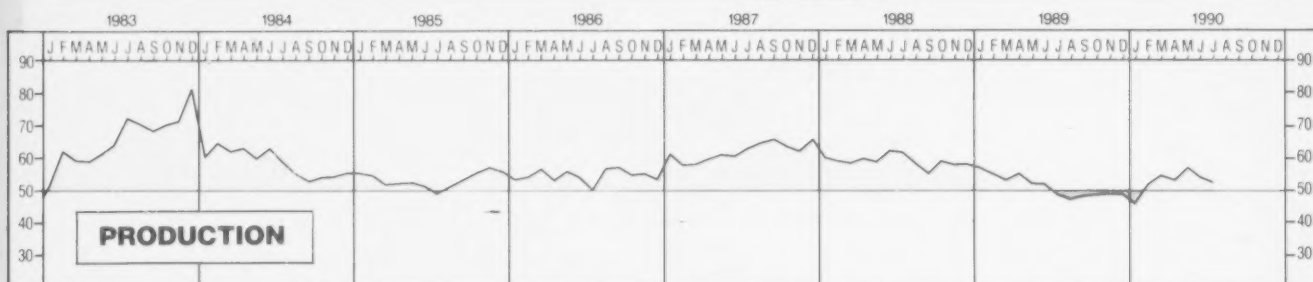
Peak — July 1981; Trough — November 1982.

PURCHASING MANAGERS' INDEX (PMI)

July '89	46.2	February '90	48.3
August '89	45.5	March '90	48.8
September '89	46.0	April '90	50.2
October '89	46.9	May '90	50.7
November '89	46.4	June '90	51.1
December '89	46.7	July '90	47.4
January '90	45.2		

The **Purchasing Managers' Index** (PMI) decreased to 47.4%, down noticeably from 51.1% in June. The decline ended three consecutive months of increases. A reading below 50 indicates that the manufacturing economy is generally declining; above 50, that it is generally expanding. Bretz added, "The PMI has averaged 48.8% for the first seven months of 1990. If the PMI remains unchanged at the July level for the balance of the year, then past experience indicates this would be consistent with real GNP growth of about 1.3% for 1990."

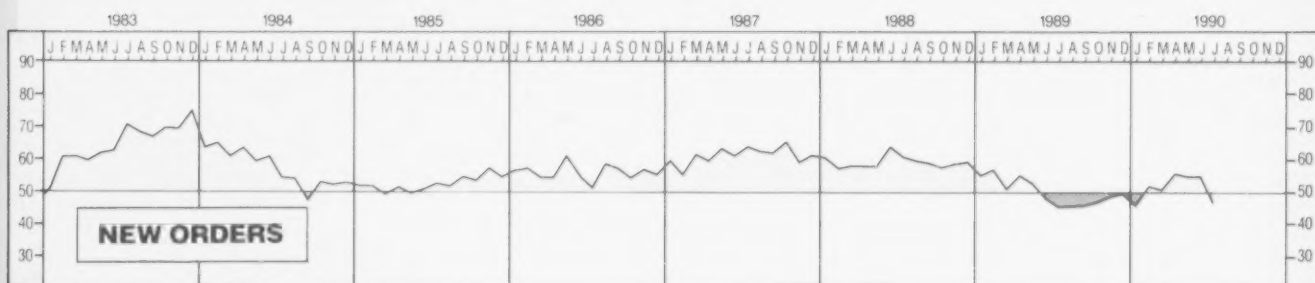
BUSINESS



Peak — July 1981; Trough — November 1982.

Production increased in July for the sixth consecutive month. The Production Index slipped to 52.1%, down from 53.9% in June, and the lowest since February 1990 (51.5%). The decline in New Orders in July will most likely slow growth in production.

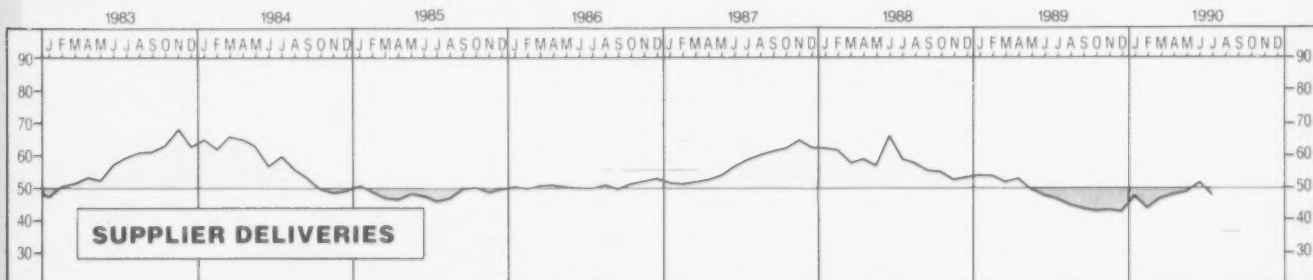
Production	%Better	%Same	%Worse	Net	Index
July 1990	19	58	23	- 4	52.1
June 1990	25	58	17	+ 8	53.9
May 1990	25	62	13	+ 12	56.3
April 1990	30	54	16	+ 14	53.0



Peak — July 1981; Trough — November 1982.

New Orders decreased in July reversing five consecutive months of increases. The New Orders Index fell sharply to 46.2% from 54.9% in June, and a 55.1% average for the second quarter. The 46.2% rate is the lowest since January 1990 (45.8%), and will undoubtedly weaken, if not decrease, the recent modest growth in production.

New Orders	%Better	%Same	%Worse	Net	Index
July 1990	19	53	28	- 9	46.2
June 1990	28	49	23	+ 5	54.9
May 1990	31	47	22	+ 9	54.8
April 1990	36	46	18	+ 18	55.5



Peak — July 1981; Trough — November 1982.

Supplier Deliveries were faster in July for the 14th time in 15 months, as the Supplier Deliveries Index fell to 47.3%. The string of 13 consecutive months of faster Supplier Deliveries (reflecting a slowing economy) was broken in June when the Supplier Deliveries Index rose to 51.2%.

Supplier Deliveries	%Slower	%Same	%Faster	Net	Index
July 1990	6	83	11	- 5	47.3
June 1990	9	81	10	- 1	51.2
May 1990	8	81	11	- 3	48.6
April 1990	7	80	13	- 6	47.6

IN SHORT SUPPLY

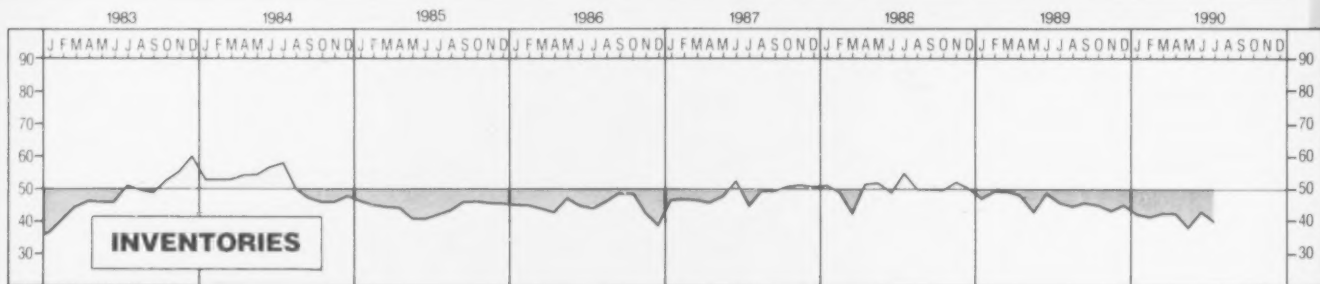
Zinc — Used heavily in metal alloys and as a protective coating for metal; **Bearings** — 24th consecutive month, a consequence of anti-dumping suits; **Electric Motors** — 11th time in 16 months; **Caustic Soda Soda Ash** — 38th consecutive month (used heavily in paper-making, petroleum refining, and soap-making); **Freon**; **Styrene** — Used chiefly in making synthetic rubber, plastic resins, and plastic; **Silicon Wafers** — 4th consecutive month (used in making semiconductors and integrated circuits); **Coated Paper** — 2nd consecutive month; **Offset Printing Paper** — 2nd consecutive month.

UP IN PRICE

Copper — 3rd consecutive month, some reports of price decreases; **Lead** — Used heavily in making paints, petroleum pipe, and batteries; **Rhodium** — Used heavily as an alloy with platinum, a corrosion-resistant electroplate,

and in making high-reflectivity mirrors; **Steel** — 2nd consecutive month; **Steel bar**; **Zinc** — 5th consecutive month, fueled by the pressure of labor contract negotiations at mines in Peru and Canada, and a major Canadian smelter (used heavily in metal alloys and as a protective coating for metal); **Offset Printing Paper** — 2nd consecutive month; **Bearings** — 22nd time in 25 months, a consequence of anti-dumping suits; **Acetone** — 3rd time in 4 months (a solvent for fats, oils, waxes, resins, rubber, plastics, lacquers, and varnishes); **Caustic Soda Soda Ash** — 44th consecutive month, primarily as a consequence of lower demand for co-produced chlorine by paper-makers (used heavily in paper-making, petroleum refining and soap making); **Methyl Ethyl Ketone (MEK)** — 3rd consecutive month (used heavily as a chemical solvent in surface coatings and in making resins); **Propylene Oxide** — Used heavily in preparation of polyethers to form polyurethanes, propylene and dipropylene glycols, lubricants, surfactants and oil demulsifiers; **Sulfur**;

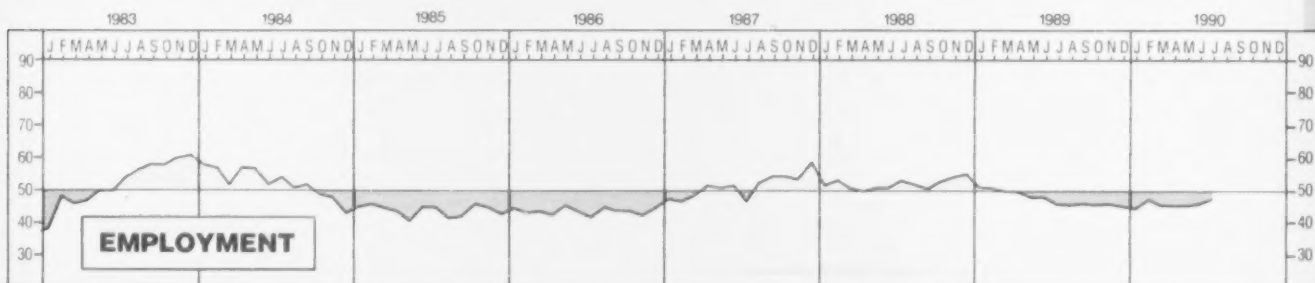
Report On Business*



Peak — July 1981; Trough — November 1982.

Inventories declined for the 20th consecutive month at a greater pace than last month. The Inventories Index fell almost four points in July to 39.3%, down from 42.9% in June. Purchasers reported cutting back on the volume of purchases in July and obviously consumed existing inventories. This action reaffirms the purchasers' objective to promptly respond to reduce inventories whenever production rates are lower than projected, and as in July, New Orders decline significantly.

Inventories	%Higher	%Same	%Lower	Net	Index
July 1990	10	55	35	- 25	39.3
June 1990	16	54	30	- 14	42.9
May 1990	11	58	31	- 20	37.8
April 1990	16	53	31	- 15	41.6



Peak — July 1981; Trough — November 1982.

Employment decreased in July for the 17th consecutive month although at a slightly lesser rate than last month. The Employment Index rose to 47.2%, up from 45.9% in June. Although still declining, July is the fourth consecutive month in which the rate of decline has lessened from the previous month.

Employment	%Higher	%Same	%Lower	Net	Index
July 1990	13	70	17	- 4	47.2
June 1990	13	68	19	- 6	45.9
May 1990	13	67	20	- 7	45.5
April 1990	14	68	18	- 4	45.1



Peak — July 1981; Trough — November 1982.

Prices rose in July for the second consecutive month and the third time in the past four months. The Price Index registered 50.9%, identical to June. Although the rates of increase in June and July are only slightly above the 50% mark, they are the highest since May 1989 (57.5%).

Prices	%Higher	%Same	%Lower	Net	Index
July 1990	12	77	11	+ 1	50.9
June 1990	17	70	13	+ 4	50.9
May 1990	11	75	14	- 3	48.5
April 1990	19	68	13	+ 6	50.8

Sulfuric Acid, — 2nd consecutive month (used heavily in making fertilizers, dyes, adhesives, and other acids); **Toluene** — Used heavily in making explosives, dyes and benzoic acid; also as a solvent in paint and as a gasoline additive; **Zinc Oxide** — 2nd consecutive month (used heavily as a pigmentation in paints and inks, in cosmetics, driers, quick setting cement, and copier paper); **Dyes, Textile; Cotton Fabric; Barley** — Used heavily in food processing and in making malt for beer; **Corn** — Used heavily in making sweeteners, starches, and alcohol; **Corn Sweeteners** — Used in food processing; **Soybean Oil** — Used heavily in food processing.

DOWN IN PRICE

Aluminum — 16th consecutive month, but some reports of price increases; **Aluminum Die Cast** — 2nd consecutive month; **Magnesium; Steel Scrap; Lumber** — 2nd consecutive month; **Linerboard** — 5th consecutive month

(used heavily in making corrugated shipping cartons); **Corrugated Shipping Containers** — 6th consecutive month; **Ethylene** — 3rd consecutive month (used heavily in making ethylene oxide, plastic resins, and glycols); **Ethylene Glycol** — Used heavily in making antifreeze, brake fluid, plastic paint, and ink; **Glycerine; Methanol** — 2nd consecutive month, after being reported up in price in April 1990 for 4th consecutive month (used heavily as a solvent, a motor fuel additive and in synthesizing other chemicals); **Phenol** — 11th time in 13 months (used heavily in making phenolic resins); **Plastic Resins** — 7th consecutive month (used in making plastic products); **Polypropylene** — Used heavily in making fabrics, yarns, and carpets; **Connectors; DRAMS** — 2nd consecutive month, dynamic electronic memory device used heavily in computers; **Fuel Oil** — 6th consecutive month; **Natural Gas** — 6th consecutive month; **Propane; Flour** — 2nd consecutive month.

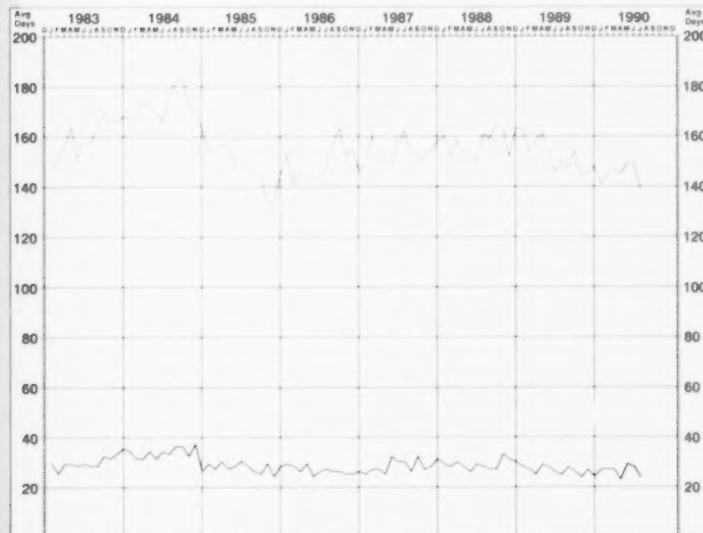
BUYING POLICY

Overall lead times for Production Materials lengthened in July while lead times for Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies contracted.

Lead times for Capital Expenditures shortened significantly. The average lead time of 139 days in July is down from 149 days in June and, more importantly, the lowest since November 1985 (134 days).

Lead times for Production Materials increased to 49 average days, up slightly from 47 average days in June and the most since March 1990 (also 49 average days).

The average lead time for Maintenance, Repair and Operating (MRO) Supplies fell to 23 average days, down sharply from 27 average days in June, and 28 average days in May, but still one more than in April 1990 (22 average days).



PERCENT REPORTING



Capital Expenditures	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year +	Avg. Days
July	14	4	13	22	33	14	139
June	11	5	14	20	33	17	149
May	10	7	10	22	35	16	149
April	12	6	13	18	36	15	145



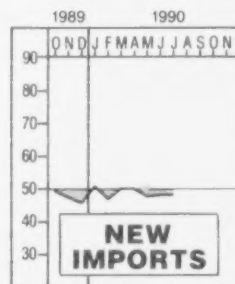
Production Materials	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year +	Avg. Days
July	20	38	28	10	2	2	49
June	19	40	28	9	3	1	47
May	17	40	27	13	2	1	48
April	16	43	28	11	2	0	44



MRO Supplies	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year +	Avg. Days
July	43	44	11	2	0	0	23
June	38	47	12	2	1	0	27
May	41	45	10	3	0	1	28
April	47	43	8	2	0	0	22



New Export Orders increased in July for the 31st consecutive month. The New Export Order Index rose to 57.0%, up from 56.5% in June. This index is not yet seasonally adjusted. The number of members exporting decreased to 74%, down from 77% in June. Thus, exports continue to bolster the manufacturing economy as they have for some time.



Imports declined for the third consecutive month. The Imports Index, not yet seasonally adjusted, registered 48.0%, identical to June. The number of members importing decreased to 76%, down from 79% last month, and duplicating April and May. The continued slowing of imports and growing of exports suggests a gradual decrease in the U.S. trade deficit.

New Export Orders	%Exporting	%Better	%Same	%Worse	Net	Index
July 1990	74	24	66	10	+14	57.0
June 1990	77	20	73	7	+13	56.5
May 1990	76	17	74	9	+8	54.0
April 1990	74	28	65	7	+21	60.5

Imports	%Importing	%Higher	%Same	%Lower	Net	Index
July 1990	76	9	78	13	-4	48.0
June 1990	79	8	80	12	-4	48.0
May 1990	76	8	79	13	-5	47.5
April 1990	76	10	80	10	0	50.0

DATA AND METHOD OF PRESENTATION

The Report on Business is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured (New Orders, New Export Orders, Imports, Supplier Deliveries (formerly Vendor Deliveries), Inventories, Employment and Prices), this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various insti-

tutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Supplier Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.

Responses to Buying Policy reflect the percent reporting the current months lead time, the approximate weighted number of days ahead for which commitments are made for Materials, Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (5 days), 30 days, 60 days, 90 days, 6 months (180 days), a year or more (360 days) and the weighted average number of days. These responses are raw data, never revised and not seasonally adjusted since there is no significant seasonal pattern.